What Is Claimed Is:

1.   In an adaptive speed control system for a vehicle, a method for controlling vehicle deceleration, the method comprising:

determining a speed of the vehicle; and

setting a maximum allowed vehicle deceleration based on the vehicle speed determined.

2.   The method of claim 1 wherein setting a maximum allowed vehicle deceleration based on the vehicle speed includes adjusting the maximum allowed vehicle deceleration in an inverse relationship to the vehicle speed.

2~~8~~.   The method of claim ~~2~~ 1 wherein adjusting the maximum allowed vehicle deceleration comprises decreasing the maximum allowed vehicle deceleration as the vehicle speed increases.

3~~4~~.   The method of claim ~~4~~ 1 wherein adjusting the maximum allowed vehicle deceleration comprises increasing the maximum allowed vehicle deceleration as the vehicle speed decreases.

5.   The method of claim 2 wherein the maximum allowed vehicle deceleration is capable of varying continuously.

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6.   The method of claim 5 wherein the maximum allowed vehicle deceleration is capable of varying in a range between about 0.2 g and about 0.3 g.

6 7.   The method of claim 1 wherein the maximum allowed vehicle deceleration is an exponential function of the vehicle speed.

7 8.   The method of claim 6 wherein the maximum allowed vehicle deceleration is defined by the equation:

$$MAXDECEL = 0.2 + 160/(VEHSPD + 40)^2,$$

where MAXDECEL is the maximum allowed vehicle deceleration, and VEHSPD is the vehicle speed.

9.   In an adaptive speed control system for a vehicle, a system for controlling vehicle deceleration, the system comprising:
     a receiver capable of receiving an input signal indicative of a speed of the vehicle; and
     a controller capable of setting a maximum allowed vehicle deceleration based on the vehicle speed.

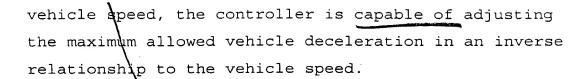10.   The system of claim 9 wherein, to set a maximum allowed vehicle deceleration based on the

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3 vehicle speed, the controller is capable of adjusting
4 the maximum allowed vehicle deceleration in an inverse
5 relationship to the vehicle speed.

1   11. The system of claim 10 wherein, to
2 adjust the maximum allowed vehicle deceleration, the
3 controller is capable of decreasing the maximum
4 allowed vehicle deceleration as the vehicle speed
5 increases.

1   12. The system of claim 10 wherein, to
2 adjust the maximum allowed vehicle deceleration, the
3 controller is capable of increasing the maximum
4 allowed vehicle deceleration as the vehicle speed
5 decreases.

1   13. The system of claim 10 wherein the
2 maximum allowed vehicle deceleration is capable of
3 varying continuously.

1   14. The system of claim 13 wherein the
2 maximum allowed vehicle deceleration is capable of
3 varying in a range between about 0.2 g and about
4 0.3 g.

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1   15. The system of claim 10 wherein the
2 maximum allowed vehicle deceleration is an exponential
3 function of the vehicle speed.

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1 16. The system of claim 15 wherein the
2 maximum allowed vehicle deceleration is defined by the
3 equation:

4 $$MAXDECEL = 0.2 + 160/(VEHSPD + 40)^2,$$

5 where MAXDECEL is the maximum allowed vehicle
6 deceleration, and VEHSPD is the vehicle speed.